

SC-900T00-A Module 2: Describe the Capabilities of Microsoft Identity and Access Management Solutions

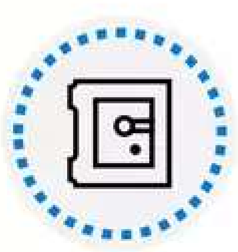
Module Agenda



Explore the services and identity types of Azure Active Directory



Explore the authentication capabilities of Azure Active Directory

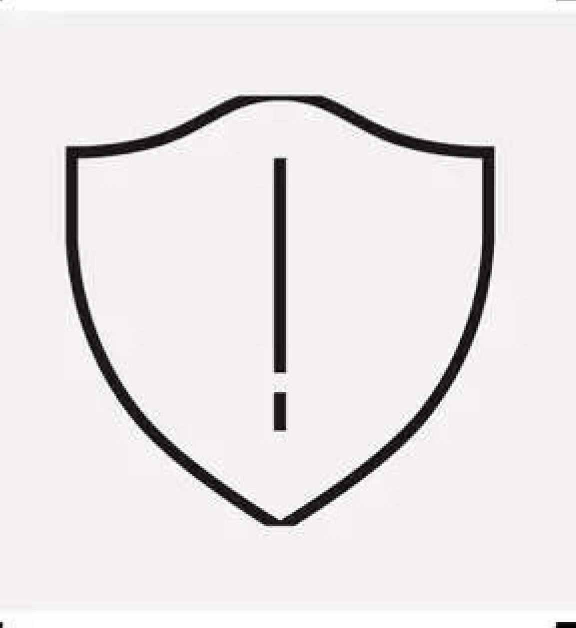


Explore the access management capabilities of Azure Active Directory



Describe identity protection governance capabilities of Azure Active Directory

Lesson 1: Explore the services and identity types in Azure Active Directory



Lesson 1 Introduction

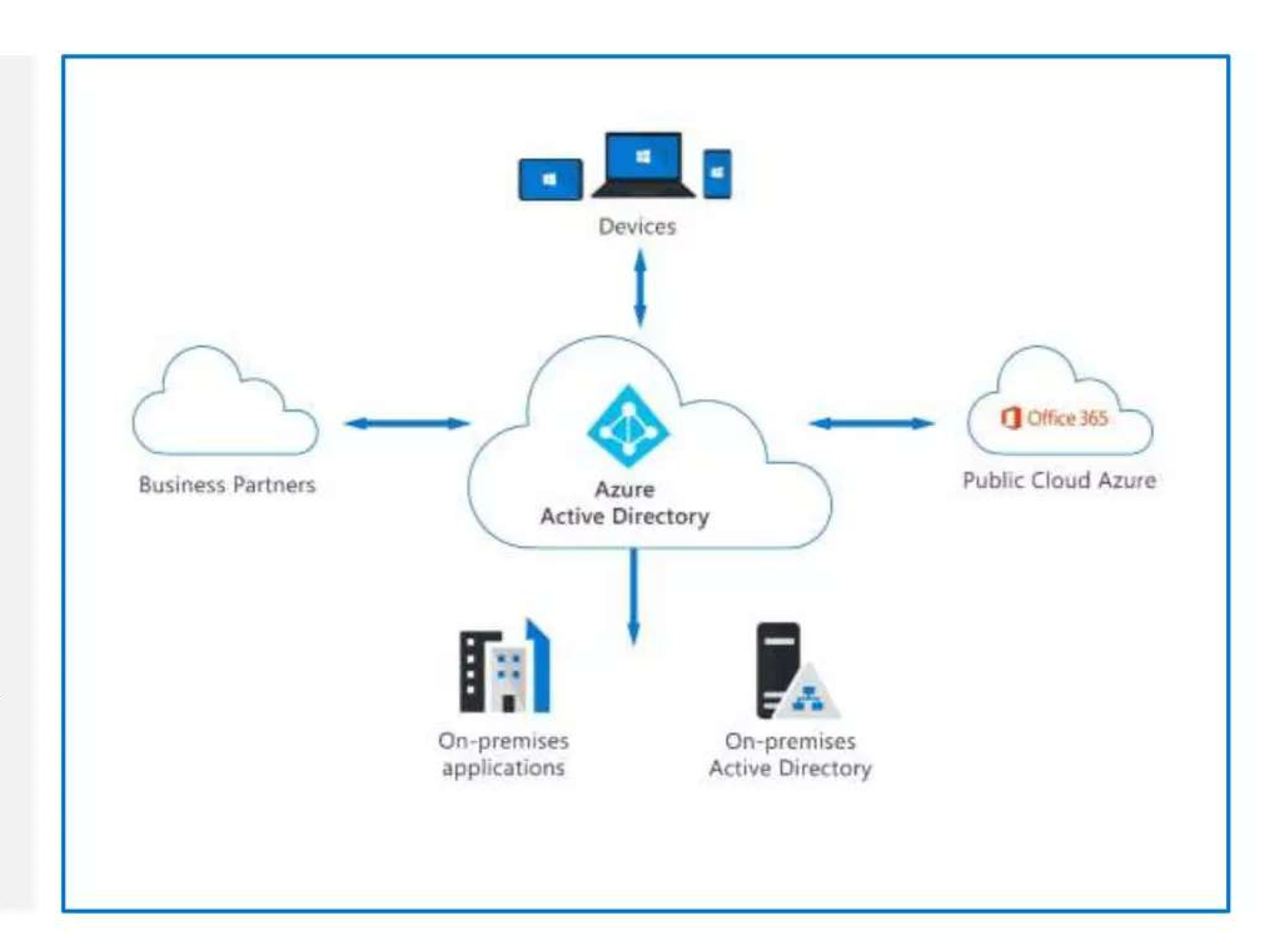
After completing this module, you'll be able to:

- Describe what is Azure AD
- Describe the identity types that Azure AD supports

Azure Active Directory

Azure AD is Microsoft's cloud-based identity and access management service. Capabilities of Azure AD include:

- Organizations can enable their employees, guests, and others to sign in and access the resources they need.
- Provide a single identity system for their cloud and on-premises applications.
- Protect user identities and credentials and to meet an organization's access governance requirements.
- Each Microsoft 365, Office 365, Azure, and Dynamics 365 Online subscription automatically use an Azure AD tenant.



Azure AD identity types

Azure AD manages different types of identities: users, service principals, managed identities, and devices.



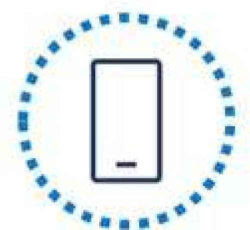
User – Generally speaking, a user is a representation of an individual’s identity that's managed by Azure AD. Employees and guests are represented as users in Azure AD.



Device - A piece of hardware, such as mobile devices, laptops, servers, or printer. Device identities can be set up in different ways in Azure AD, to determine properties such as who owns the device.



Service principal - You can think of it as an identity for an application. A service principal is created in every tenant the application is used & defines who can access the app, what resources the app can access, and more.



Managed identity – A type of service principal, a managed identity provides an identity for applications to use when connecting to resources that support Azure AD authentication.



Demo

Azure Active Directory user settings

External identities in Azure AD

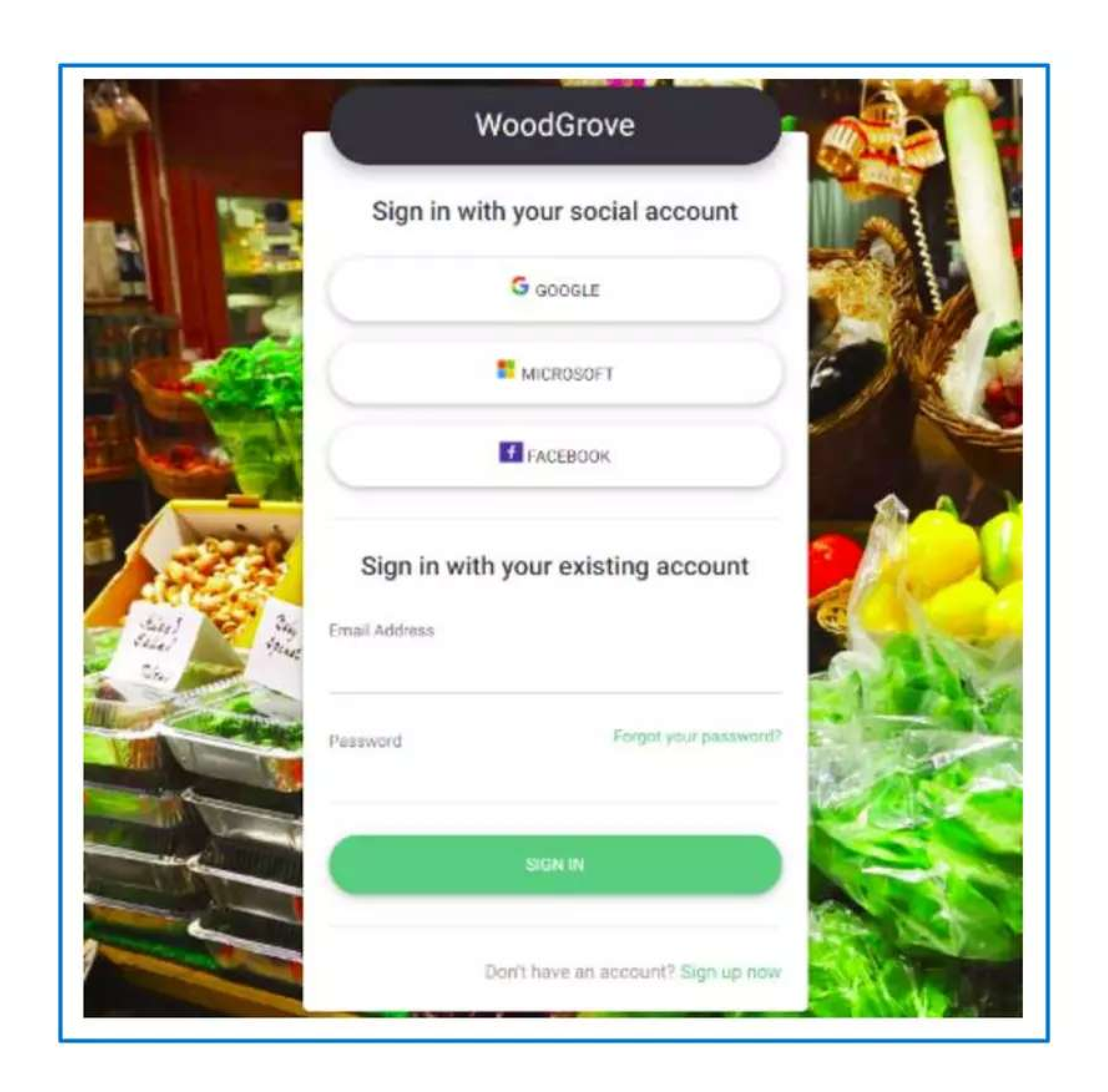
Two different Azure AD External Identities:

B2B collaboration

B2B collaboration allows you to share your apps and resources with external users

B2C access management

B2C is an identity management solution for consumer and customer facing apps

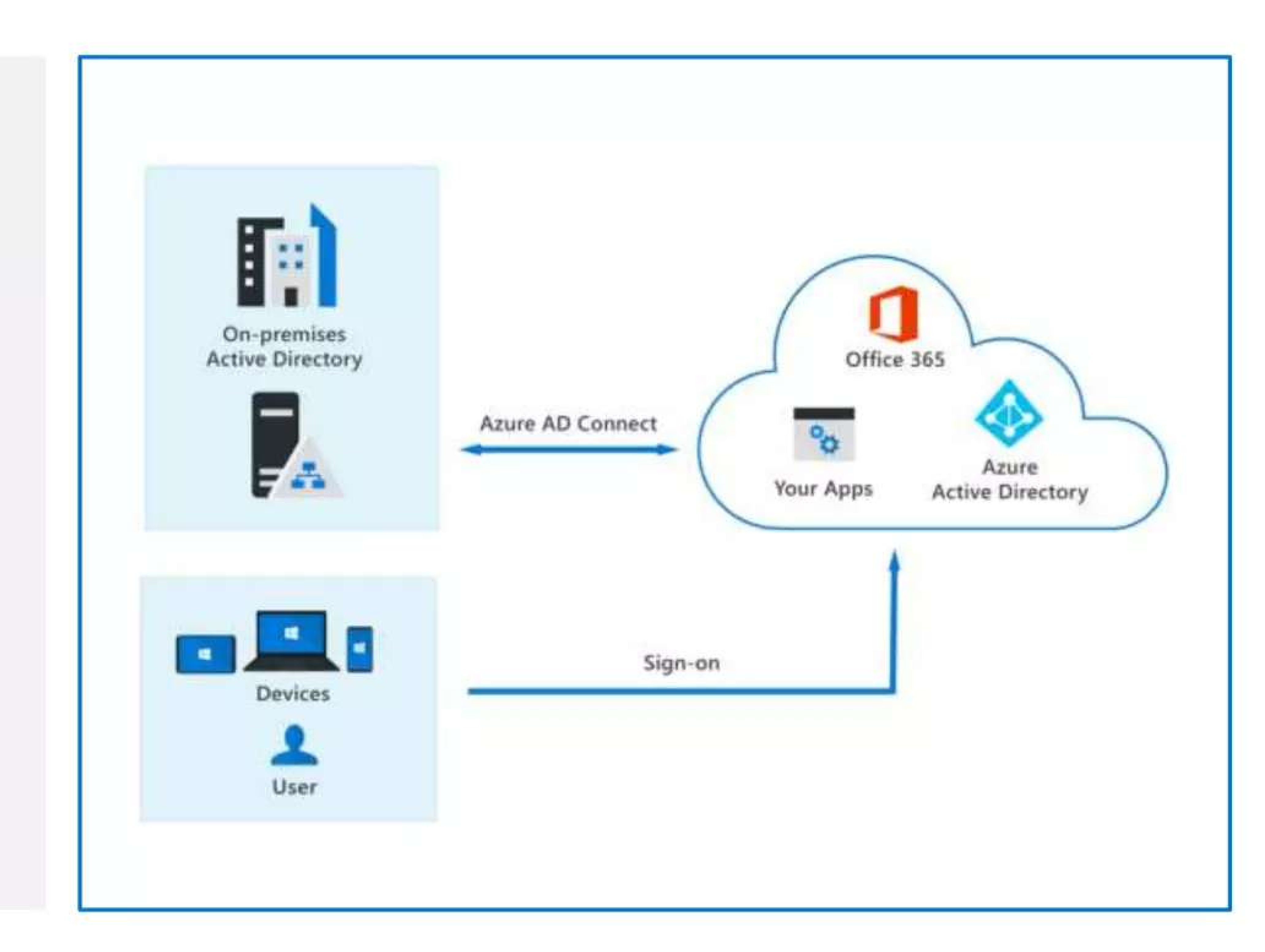


The concept of hybrid identities

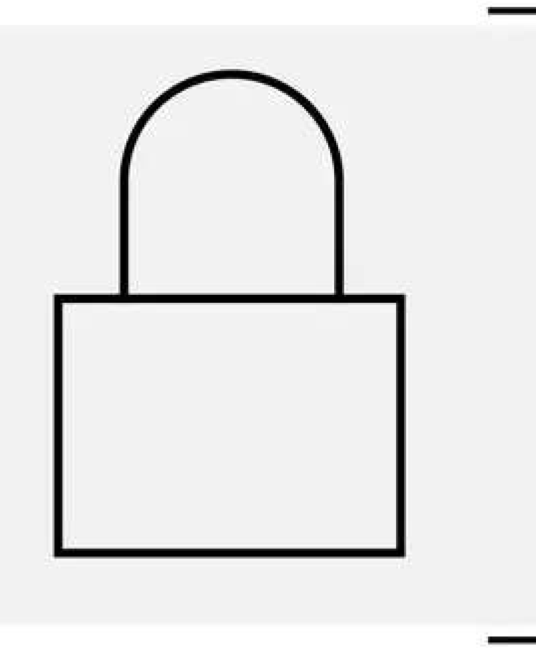
Hybrid identities

Hybrid identity model

- With the hybrid model, users accessing both on-premises and cloud apps are hybrid users managed in the on-premises Active Directory.
- When you make an update in your on-premises AD DS, all updates to user accounts, groups, and contacts are synchronized to your Azure AD with ***Azure AD Connect***



Lesson 2: Explore the authentication capabilities of Azure Active Directory



Lesson 2 Introduction

After completing this module, you'll be able to:

- Describe the secure authentication methods of Azure AD
- Describe the password protection and management capabilities of Azure AD

Authentication methods of Azure AD

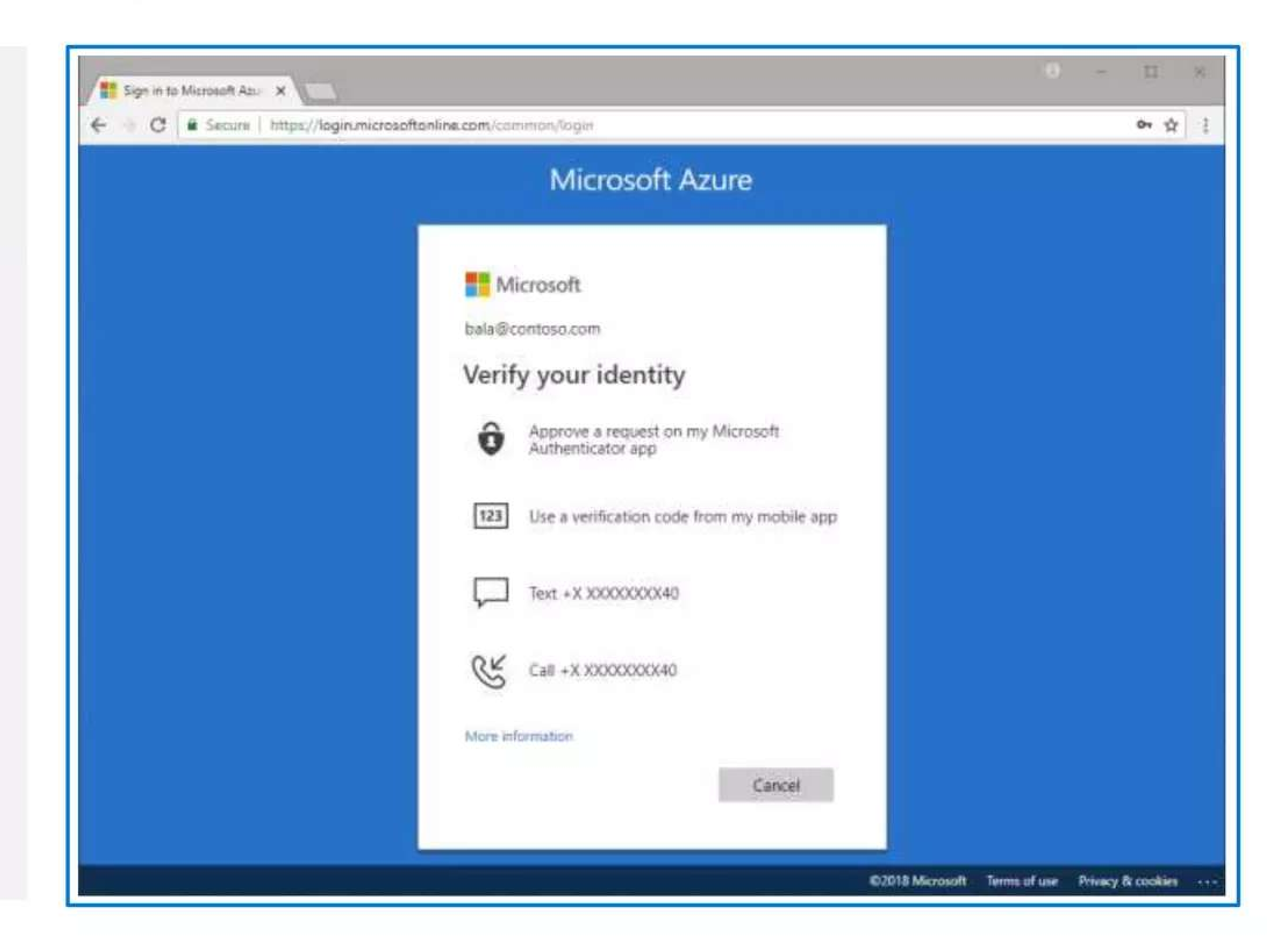
Multifactor authentication (MFA) & Security Defaults

MFA requires more than one form of verification:

- Something you know
- Something you have
- Something you are

Security defaults:

- A set of basic identity security mechanisms recommended by Microsoft.
- A great option for organizations that want to increase their security posture but don't know where to start, or for organizations using the free tier of Azure AD licensing.



Multi-factor authentication (MFA) in Azure AD

Different authentication methods that can be used with MFA

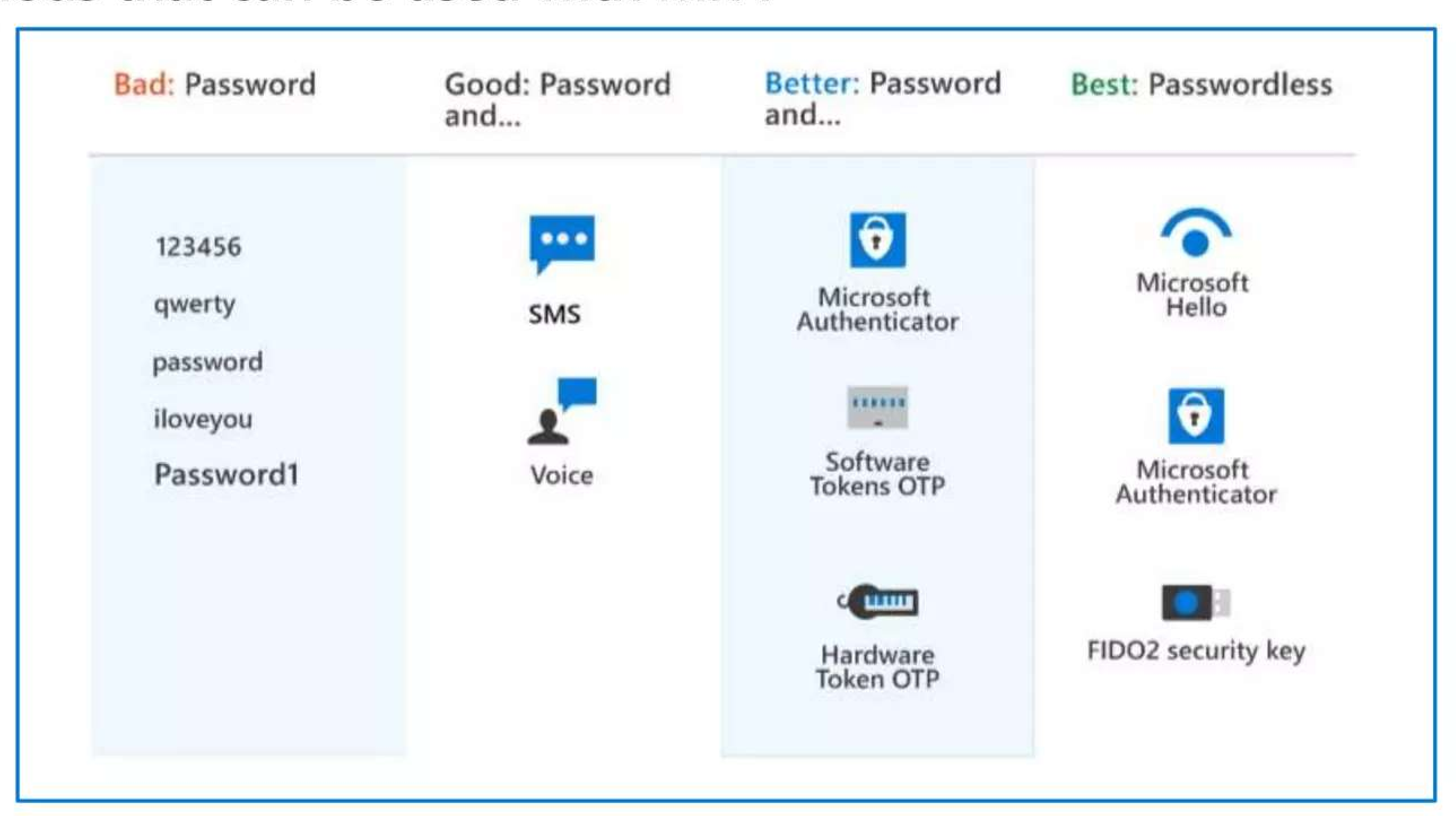
Passwords

Password & additional verification

- Phone (voice or SMS)
- Microsoft Authenticator
- Open Authentication (OATH) with software or hardware tokens

Passwordless

- Biometrics (Windows Hello)
- Microsoft Authenticator
- FIDO2



Windows Hello for Business

Windows Hello lets users authenticate to:

- A Microsoft account
- An Active Directory account
- An Azure Active Directory (Azure AD) account
- Identity Provider Services or Relying Party Services that support Fast ID Online v2.0 authentication

Why is Windows Hello safer than a password?

Because it's tied to the specific device on which it was set up. Without the hardware, the PIN is useless

Self-service password reset (SSPR) in Azure AD

Benefits of Self-service password reset:

- It increases security.
- It saves the organization money by reducing the number of calls and requests to help desk staff.
- It increases productivity, allowing the user to return to work faster.

Self-service password reset works in the following scenarios:

- Password change
- Password reset
- Account unlock

Authentication method of SSPR:

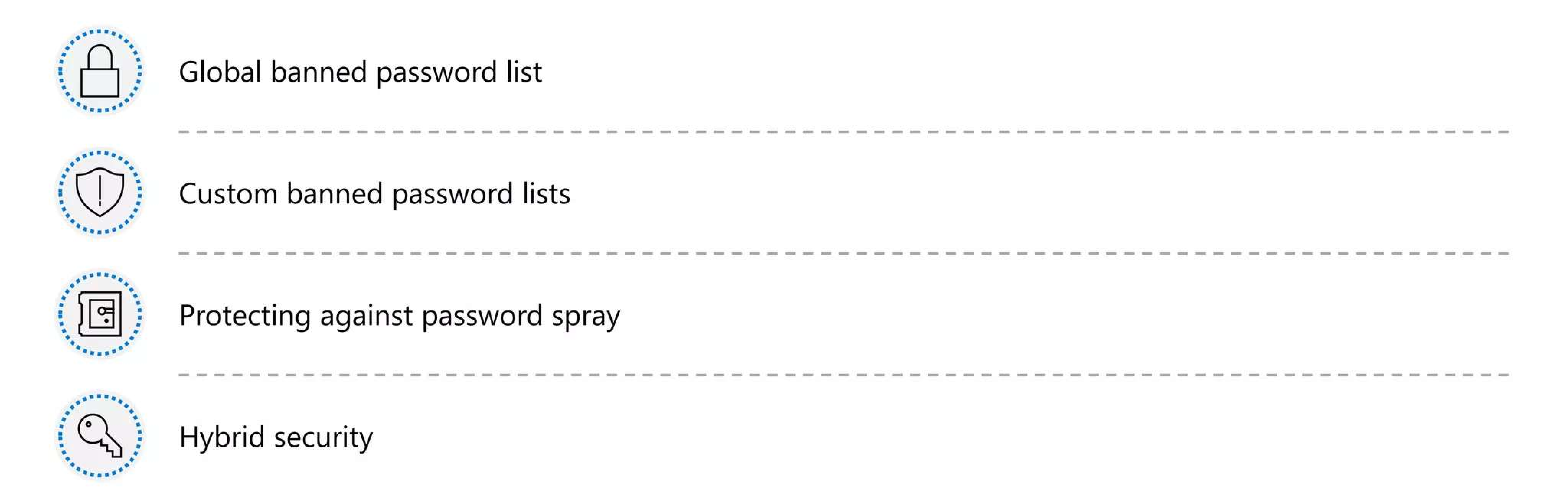
- Mobile app notification
- Mobile app code
- Email



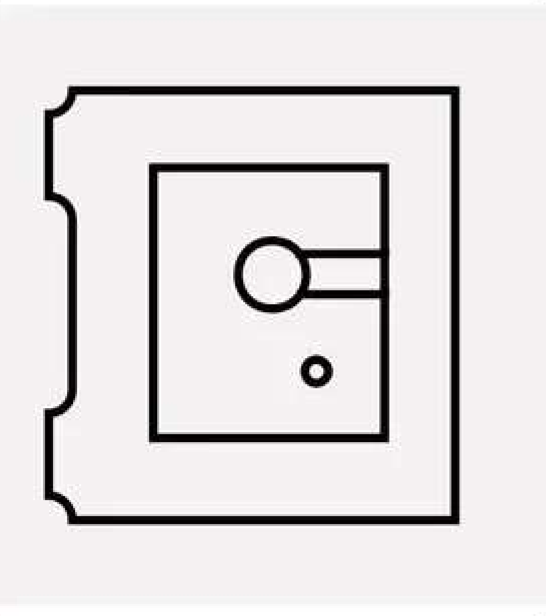
Demo

Azure Active Directory
self-service password reset (SSPR)

Password protection & management capabilities in Azure AD



Lesson 3: Explore the access management capabilities of Azure Active Directory



Lesson 3 Introduction

After completing this module, you'll be able to:

- Describe Conditional Access and its benefits
- Describe Azure AD roles

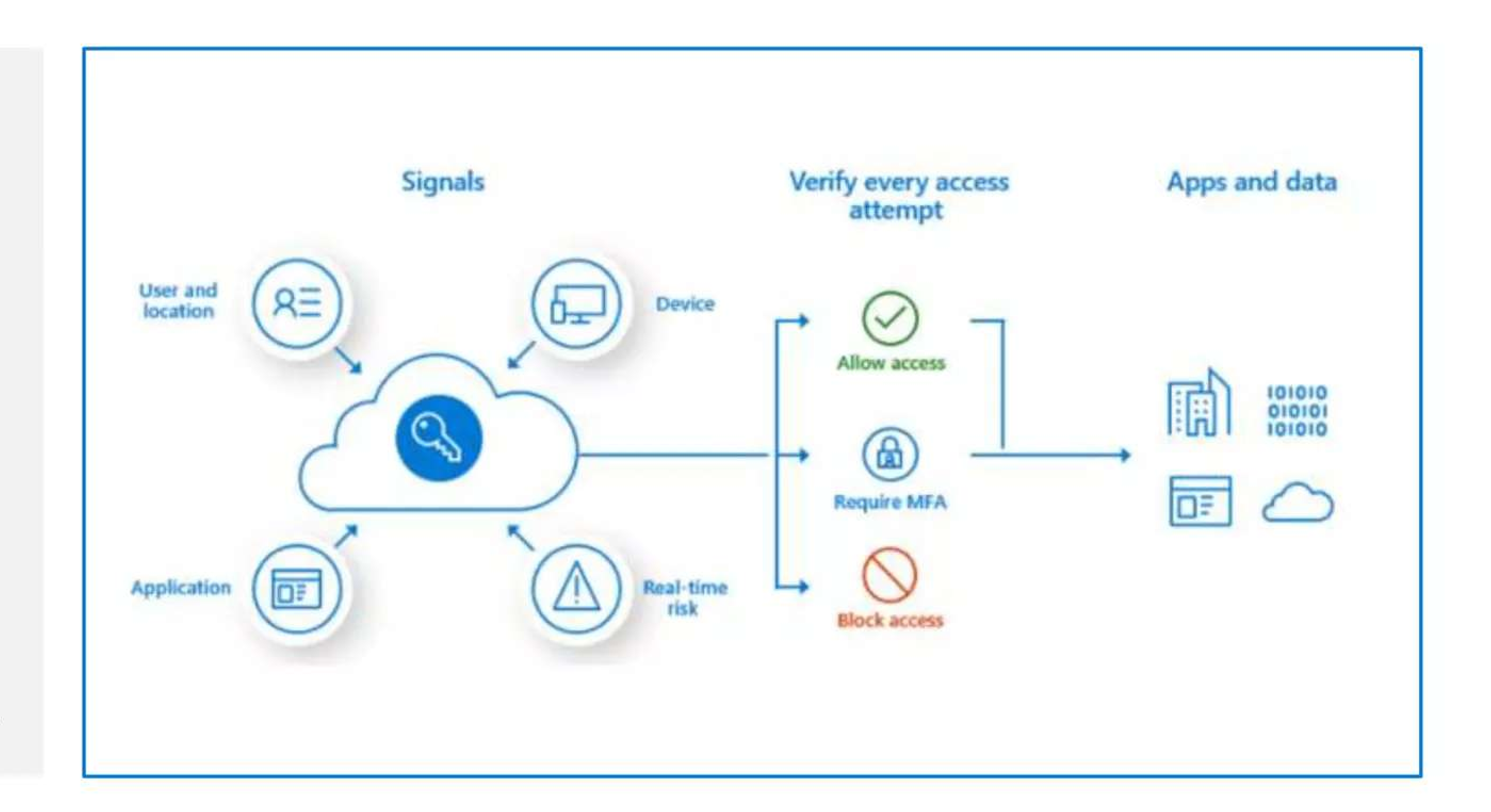
Conditional access

Conditional Access signals:

- User or group membership
- Named location information
- Device
- Application
- Real-time sign-in risk detection
- Cloud apps or actions
- User risk

Access controls:

- Block access
- Grant access
- Require one or more conditions to be met before granting access
- Control user access based on session controls to enable limited experiences within specific cloud applications



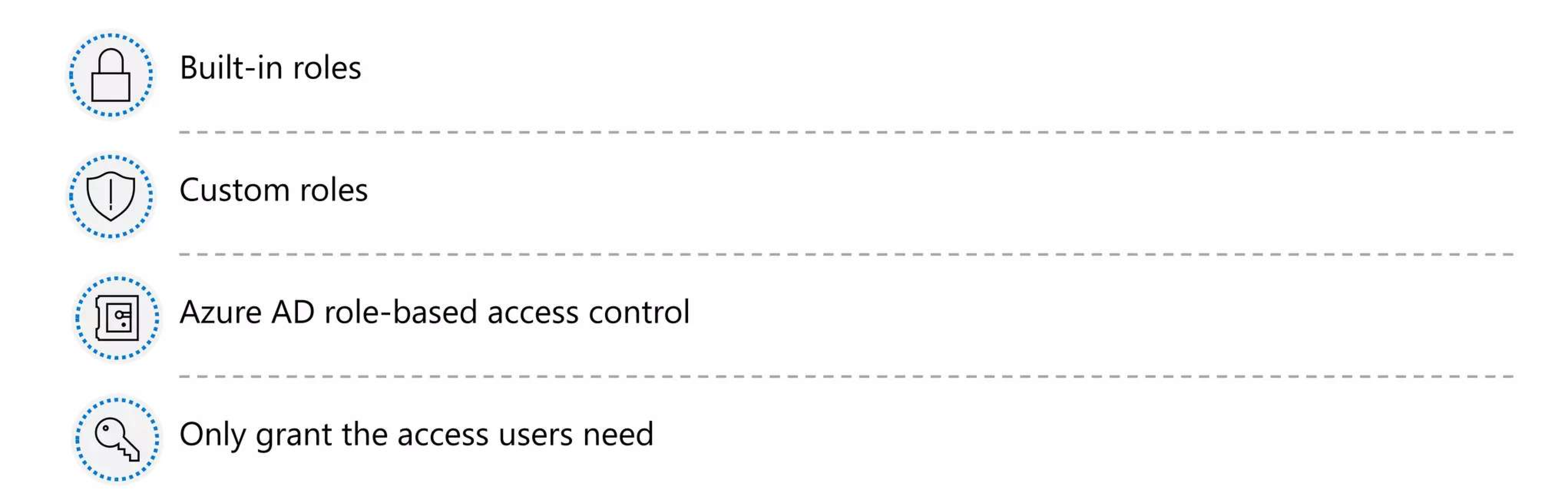


Demo

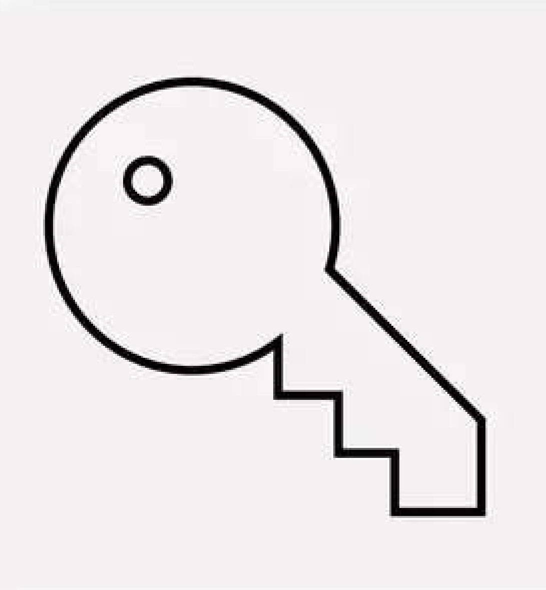
Azure Active Directory Conditional Access

Azure AD role-based access control (RBAC)

Azure AD roles control permissions to manage Azure AD resources.



Lesson 4: Describe the identity protection and governance capabilities of Azure Active Directory



Lesson 4 Introduction

After completing this module, you'll be able to:

- Describe the identity governance capabilities of Azure AD.
- Describe the benefits of Privileged Identity Management (PIM).
- Describe the capabilities of Azure AD Identity Protection.

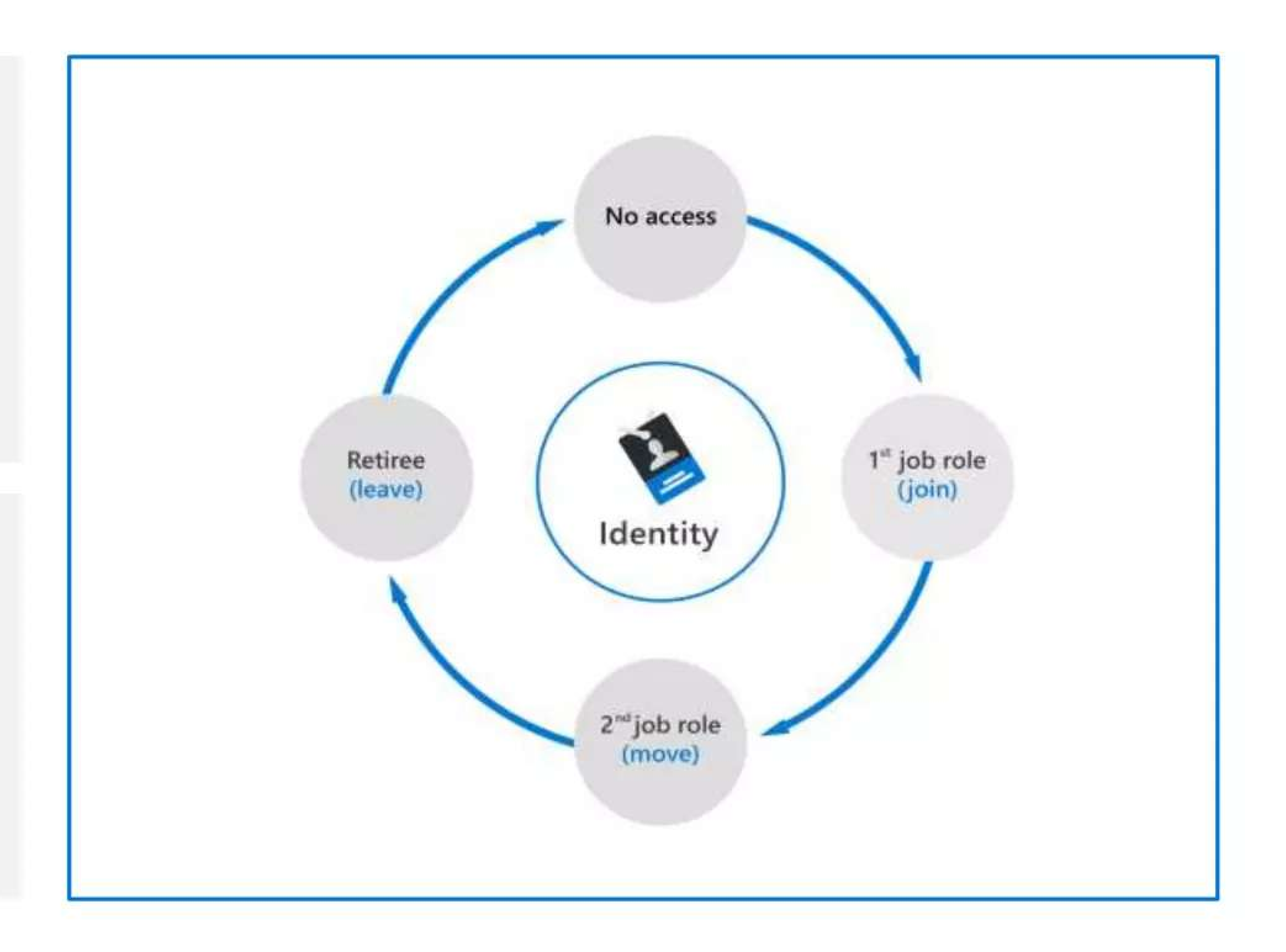
Identity governance in Azure AD

The tasks of Azure AD identity governance

- Govern the identity lifecycle.
- Govern access lifecycle.
- Secure privileged access for administration.

Identity lifecycle

- Join: A new digital identity is created.
- Move: Update access authorizations.
- Leave: Access may need to be removed.



Entitlement management and access reviews

Entitlement management

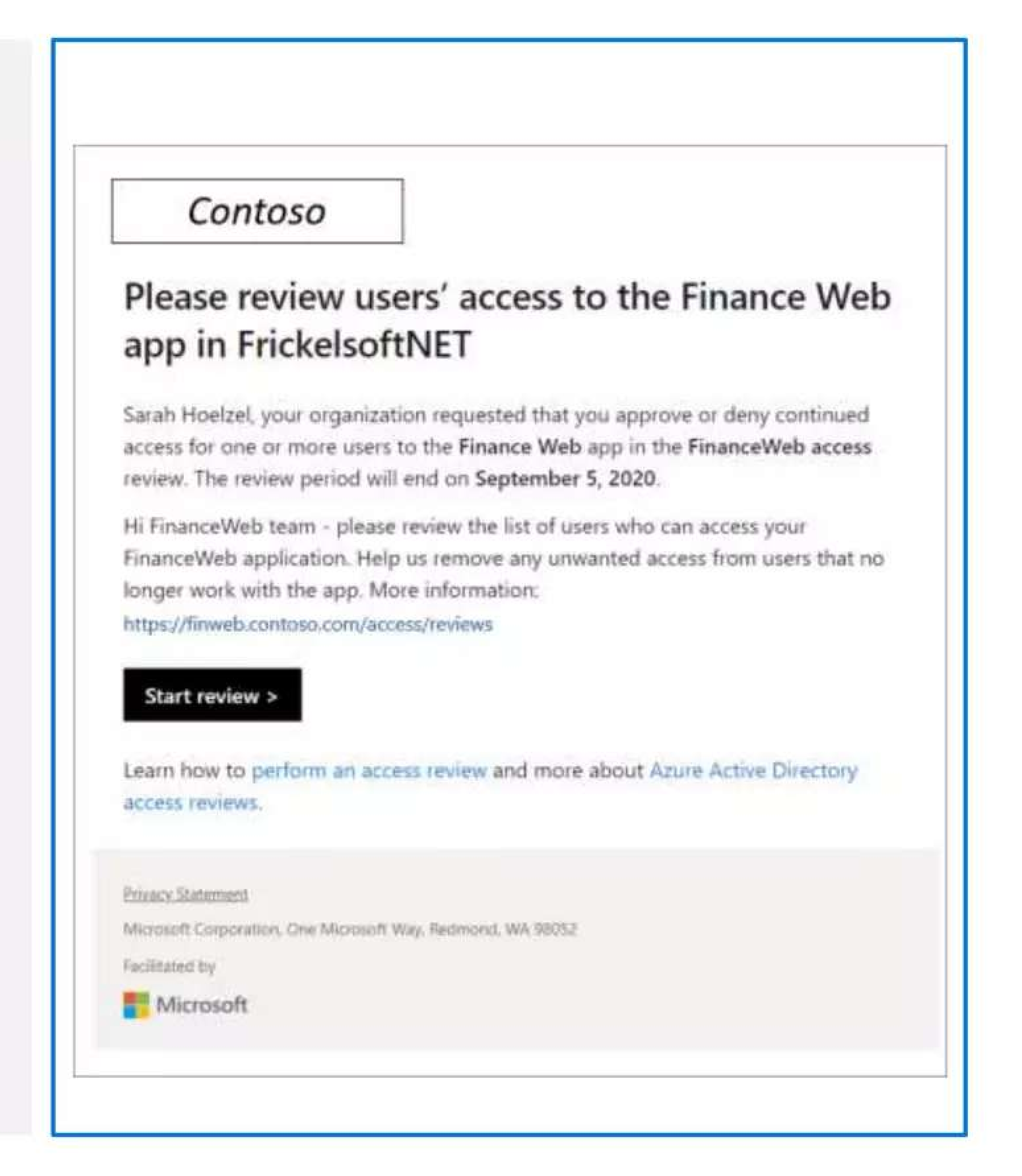
- It is an identity governance feature that enables organizations to manage identity and access lifecycle at scale.
- It automates access request workflows, access assignments, reviews, and expiration.

Access reviews

- Enable organizations to efficiently manage group memberships, access to enterprise applications, and role assignment.
- Ensure that only the right people have access to resources
- Used to review and manage access for both users and guests

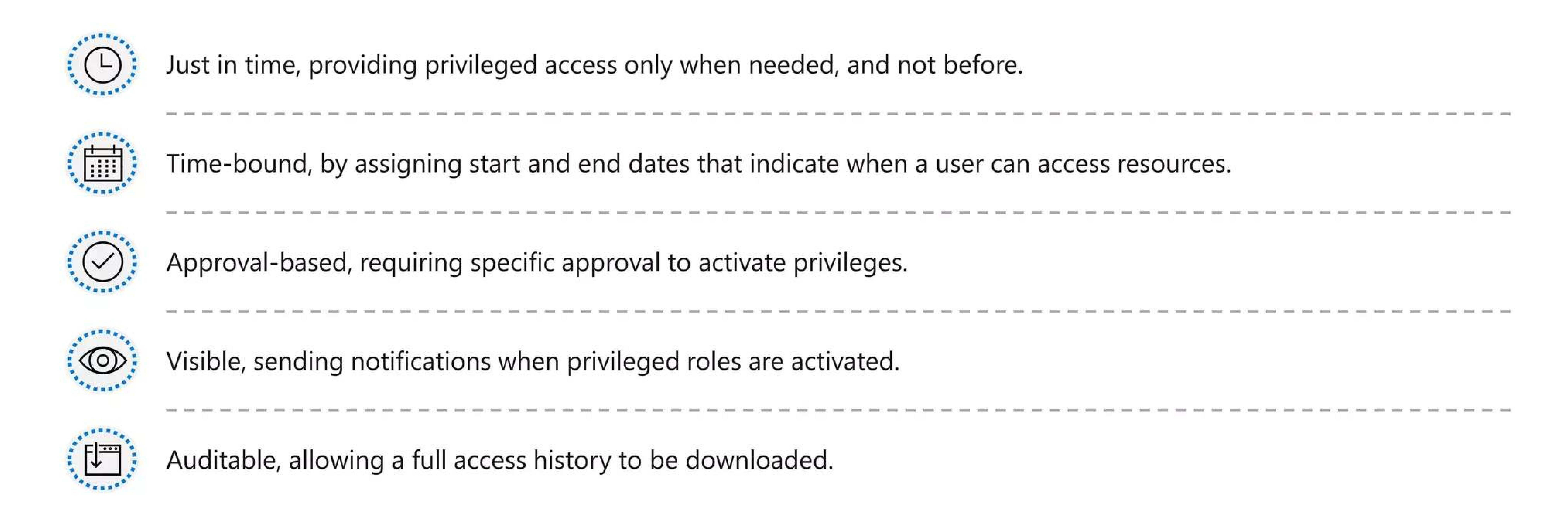
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Privileged Identity Management (PIM)

PIM enables you to manage, control, and monitor access to important resources in your organization.



Azure Identity Protection

Enables organizations to accomplish three key tasks:

- Automate the detection and remediation of identity-based risks.
- Investigate risks using data in the portal.
- Export risk detection data to third-party utilities for further analysis.

It can categorize and calculate risk:

- Categorize risk into three tiers: low, medium, and high.
- Calculate the sign-in risk, and user identity risk.

It provides organizations with three reports:

- Risky users
- Risky sign-ins
- Risk detections

Module Summary

In this module, you have:

- Learned about Azure AD and services and identity types Azure AD supports
- Explore the authentication capabilities of Azure AD, including MFA
- Explore the access management capabilities of Azure AD with Conditional Access and Azure AD RBAC
- Describe identity protection and governance capabilities of Azure AD, including PIM, entitlement management, and access reviews.
- Learned about the capabilities of Azure AD Identity Protection.


Microsoft Security